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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/708,114	11/06/2000	Bruce A. Fairman	SONY-14500	9111

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EXAMINER

HUYNH, KIM NGOC

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 03/29/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

52

Office Action Summary

Application No.

09/708,114

Applicant(s)

FAIRMAN, BRUCE A.

Examiner

Kim Huynh

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 3/1/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/1/04 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-46 excluding claims 5, 8, 13, 16, 21, 24, 29, 32, 36, 39, 43 and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Lai et al. (US 6,516,371).

Lai discloses an apparatus for buffering data in a FIFO wherein the apparatus having an input interface circuit (PCI BUI 16), a data memory (SRAM 18), program memory (offset register 72) and execution unit (MMU 52).

Claims 1, the apparatus of Lai necessitates the method of buffering data within a FIFO buffer (single chip interface device) as claimed wherein a stream of data is received and stored in a memory SRAM 18 (Fig. 1, col. 1, ll. 23-29), and a series of program instructions is obtained to operate on the stored data and to generate an output accordingly via the bus interface unit PCI BUI 16 (see col. 1, l. 49 through col. 2, l. 16).

Claims 2-3, the program instructions are obtained from an application or control circuit (CPU or DMA, col. 7, l. 11 through col. 8, l. 27).

Claim 4, the stream of data is received from a bus structure (PCI 16 and MAC 20, Fig. 1 and col. 2, ll. 38-46 and col. 4, ll. 8-22).

Claims 6-7, the output stream of data is transmitting from a buffer interface (PCI BUI 16) and including synchronizing the output stream to a time reference (col. 4, ll. 58-68 and col. 5, ll. 1-8).

As for claims 9-46 excluding 5, 8, 13, 16, 21, 24, 29, 32, 36, 39, 43 and 46 are variations of claims 1-4 and 6-7 and are rejected accordingly. Claims 14, 16, 21, 24, 29, 32, 36, 39, 43 and 46 recite the bus structure as IEEE 1394 and are rejected according to the rejection of claims 5 and 8 discussed below.

As for claims 14, 25, 33, please note the bus interface/means (BIU 16) for receiving a stream of data, data memory/means (SRAM 18) for storing the stream of data, program memory/means (72) for obtaining the a series of program instructions (RX_BYTE_OFST command) to be performed on the stream of data to obtain and store a series of program instruction; and execution unit/means for generating output streams of data by executing the program instructions and performing the operations on the stored stream data (col. 7, ll. 11-67).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5, 8, 13, 16, 21, 24, 29, 32, 36, 39, 43 and 46 are rejected under 35 U.S.C. 103(a) as being obvious over Lai.

Claim 5, Lai discloses the bus structure to be an Ethernet network (IEEE 802.3). Lai also indicates that it is apparent that his invention is applicable to other network interface (col. 2, ll. 38-46); therefore it would have been obvious to one having ordinary skill in the art to utilize Lai's buffering technique with other interface devices as suggested by Lai to take advantage of the flexibility in manipulating data and reduce latency in processing incoming data (col. 1, ll. 48-55).

Claim 8, since the invention of Lai synchronizes the output stream based on the time reference of the bus interface (IEEE 802.3, col. 5, ll. 1-8) and therefore it is inherent that his invention would synchronize according to the applicable network interface used in the system.

Claims 13, 16, 21, 24, 29, 32, 36, 39, 43 and 46 repeat the limitations of claims 5 and 8 and therefore are rejected accordingly.

Response to Arguments

6. Applicant's arguments filed 9/30/03 have been fully considered but they are not persuasive.

Applicant argues that the reference of Lai differs from the claimed invention, the examiner respectfully disagrees.

Please note Lai discloses a network interface and a method for buffering the data in the FIFO of the network interface having a bus interface/means (BIU 16) for receiving a stream of data, data memory/means (SRAM 18) for storing the stream of data, program memory/means (72) for obtaining the a series of program instructions (RX_BYTE_OFST command) to be performed on the stream of data to obtain and store a series of program instruction; and execution unit/means for generating output streams of data by executing the program instructions and performing the operations on the stored stream data (col. 7, ll. 11-67).

The instructions from CPU is stored in the register offset register 72 in order to improve flexibility in manipulate the data stored in the SRAM 18 (col. 7, ll. 54-59 and col. 8, ll. 7-23) in the same manner as the claimed invention.

Response to Arguments

7. Applicant's arguments filed 1/13/04 have been fully considered but they are not persuasive.

Applicant argues that the reference of Lai differs from the claimed invention, the examiner respectfully disagrees. Lai indicates that a FIFO is conventionally used in a network interface for storing transmit and received data, the disadvantage of using FIFO is the lack of flexibility in manipulating data since the data frame must be read out in the same order received and therefore increases latency in processing the incoming data (background, col. 1, ll. 23-46). Lai invention is to improve upon the FIFO by providing the ability to manipulating data in the "FIFO" of the network interface by using RAM to provide the flexibility in reading/manipulating the data.

Similarly, applicant's "FIFO" is more than just a first in first out (FIFO) memory in the conventional sense; the "FIFO" of applicant is an device including programmable elements, memory elements and control circuitry to manipulate the data stored in the memory element and produce an output which is different than the data being received into the memory element. The apparatus and operation of the apparatus are in the same manner as the apparatus disclosed by Lai. The only different is the terminology used to label the apparatus.

Applicant argues that Lai does not teach the “network interface device generates an output stream of data by executing a series of program instruction on the data stored within the FIFO”. Please note executing the program instruction on the data stored within the FIFO is different that executing the instructions within the FIFO. Similarly, “generating an output stream of data by executing ... and performing the operation on the stored stream of data” does not mean that the act of executing and performing are within the FIFO. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claims as recited require that input data are received and buffered/stored within the FIFO, however, the claims do not require the rest of the steps/elements relating to the program instruction, execution, and generating the output data to be within the FIFO as argued.

Conclusion

8. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

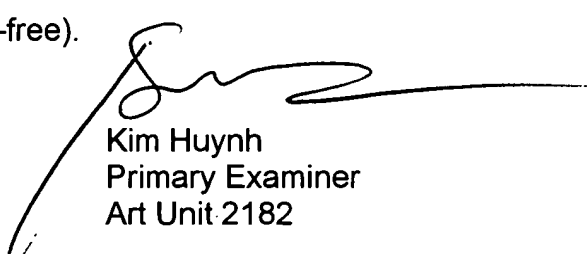
Art Unit: 2182

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (703) 308-1678.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kim Huynh
Primary Examiner
Art Unit 2182

KH
March 24, 2004